

IN THE CLAIMS:

Cancel claims 3, 4, 7, 10, 11, 14 and 15 before calculating the filing fee as shown in the following listing of claims, which replaces all prior versions and listings of claims.

1. (original) A memory interface device to control a memory access with respect to: a memory write unit to comply with a memory write procedure in which every time data is written into a memory every predetermined amount unit, it is confirmed that readout of the data from the memory has been completed, and then the next write of the data into the memory is performed; and a memory readout unit which reads the data from the memory, the memory interface device comprising:

write detection means for detecting the write of the predetermined amount unit of the data from the memory write unit into the memory;

signal generation means for generating a signal to notify the memory write unit that the readout of the data from the memory has been completed, in a case where the write of the predetermined amount unit of the data is detected;

data storage amount measurement means for measuring an amount of the data stored in the memory; and

memory readout control means for generating an interrupt signal with respect to the memory readout unit, in a case where the stored data amount in the memory reaches a predetermined readout start storage amount.

2. (original) A memory interface device connected to a memory write unit to comply with a memory write procedure in which every time data is written into a memory every predetermined amount unit, it is confirmed that readout of the data from the memory has been completed, and then the next write of the data into the memory is performed; the memory interface device being configured to control a memory access to the memory write unit, the memory interface device comprising:

write detection means for detecting the write of the predetermined amount unit of the data from the memory write unit into the memory;

signal generation means for generating a signal to notify the memory write unit that the readout of the data from the memory has been completed, in a case where the write of the predetermined amount unit of the data is detected;

data storage amount measurement means for measuring an amount of the data stored in the memory;

data processing means for reading the data from the memory to subject the data to predetermined processing; and

memory readout control means for generating an interrupt signal with respect to the data processing means, in a case where the stored data amount in the memory reaches a predetermined readout start storage amount.

3. - 4. (canceled)

5. (original) A memory interface method to control a memory access with respect to: a memory write unit to comply with a memory write procedure in which every time data is written into a memory every predetermined amount unit, it is confirmed that readout of the data from the memory has been completed, and then the next write of the data into the memory is performed; and a memory readout unit which reads the data from the memory, the memory interface method comprising:

a step of detecting the write of the predetermined amount unit of the data from the memory write unit into the memory;

a step of notifying the memory write unit that the readout of the data from the memory has been completed, in a case where the write of the predetermined amount unit of the data is detected;

a step of measuring an amount of the data stored in the memory; and

a step of generating an interrupt signal with respect to the memory readout unit, in a case where the stored data amount in the memory reaches a predetermined readout start storage amount.

6. (original) The memory interface method according to claim 5, further comprising:

a step of temporarily stopping the readout completion notice, in a case where the stored data amount in the memory reaches the predetermined readout start storage amount.

7. (canceled)

8. (original) A memory interface device to control a memory access with respect to: a first memory write and readout unit to comply with a memory write procedure in which every time data is written into a memory every predetermined amount unit, it is confirmed that readout of the data from the memory has been completed, and then the next write of the data into the memory is performed; and a second memory write and readout unit which writes and reads the data with respect to the memory, the memory interface device comprising:

write detection means for detecting the write of the predetermined amount unit of the data from the first memory write and readout unit into the memory;

first completion signal generation means for

generating a signal to notify the first memory write and readout unit that the readout of the data from the memory has been completed, in a case where the write of the predetermined amount unit of the data is detected;

first data storage amount measurement means for measuring an amount of the data stored in the memory;

first memory readout control means for generating an interrupt signal with respect to the second memory write and readout unit, in a case where the stored data amount in the memory reaches a predetermined readout start storage amount;

write amount detection means for detecting the write of the predetermined amount of the data from the second memory write and readout unit into the memory;

second completion signal generation means for generating a signal to notify the first memory write and readout unit that the write of the data into the memory has been completed, in a case where the write of the predetermined amount of the data is detected;

second data storage amount measurement means for measurement the stored data amount in the memory; and

second memory readout control means for generating an interrupt signal with respect to the second memory write and readout unit, in a case where the stored data amount in the memory reaches a predetermined readout completion storage amount.

9. (original) The memory interface device according to claim 8, wherein the first memory readout control means temporarily stops the signal generation by the first completion signal generation means, in a case where the stored data amount in the memory reaches the predetermined readout start storage amount.

10. - 11. (canceled)

12. (original) A memory interface method to control a memory access with respect to: a first memory write and readout unit to comply with a memory write procedure in which every time data is written into a memory every predetermined amount unit, it is confirmed that readout of the data from the memory has been completed, and then the next write of the data into the memory is performed; and a second memory write and readout unit which writes and reads the data with respect to the memory, the memory interface method including:

a step of detecting the write of the predetermined amount unit of the data from the memory write unit into the memory;

a step of notifying the first memory write and readout unit that the readout of the data from the memory has been completed, in a case where the write of the predetermined amount unit of the data is detected;

a step of measuring an amount of the data stored in the memory;

a step of generating an interrupt signal with respect to the memory readout unit, in a case where the stored data amount in the memory reaches a predetermined readout start storage amount;

a step of detecting the write of the predetermined amount of the data from the second memory write and readout unit into the memory;

a step of generating a signal to notify the first memory write and readout unit that the write of the data into the memory has been completed, in a case where the write of the predetermined amount of the data is detected;

a step of measuring the stored data amount in the 15 memory; and

a step of generating an interrupt signal with respect to the second memory write and readout unit, in a case where the stored data amount in the memory reaches a predetermined readout completion storage amount.

13. (original) The memory interface method according to claim 12, further comprising:

a step of temporarily stopping the readout completion notice, in a case where the stored data amount in the memory reaches the predetermined readout start storage amount.

14. - 15. (canceled)

16. (original) A modem device connected to a data processing unit to comply with a memory write procedure in which every time communication data or control command data is written into a memory every predetermined amount unit, it is confirmed that readout of the data from the memory has been completed, and then the next write of the data into the memory is performed,

the modem device comprising: a modem interface which exchanges the data with respect to the data processing unit; the memory; a memory readout unit which reads the data from the memory; and communication means connected to the memory readout unit to transmit and receive the communication data,

the modem device further comprising:

write detection means for detecting the write of the predetermined amount unit of the data from the memory write unit into the memory;

signal generation means for generating a signal to notify the data processing unit that the readout of the data from the memory has been completed, in a case where the write of the predetermined amount unit of the data is detected;

data storage amount measurement means for measuring an amount of the data stored in the memory; and

memory readout control means for generating an interrupt signal with respect to the memory readout unit, in a case where the stored data amount in the memory reaches a predetermined readout start storage amount.

17. (original) A modem device connected to a data processing unit to comply with a memory write procedure in which every time communication data or control command data is written into a memory every predetermined amount unit, it is confirmed that readout of the data from the memory has been completed, and then the next write of the data into the memory is performed,

the modem device comprising: a modem interface which exchanges the data with respect to the data processing unit; the memory; a, memory write and readout unit which writes and reads the data with respect to the memory; and communication means connected to the memory write and readout unit to transmit and receive the communication data,

the modem device further comprising:

write detection means for detecting the write of the predetermined amount unit of the data from the memory write and readout unit into the memory;

first completion signal generation means for generating a signal to notify the data processing unit that the readout of the data from the memory has been completed, in a case where the write of the predetermined amount unit of

the data is detected;

first data storage amount measurement means for measuring an amount of the data stored in the memory; first memory readout control means for generating an interrupt signal with respect to the memory write and readout unit, in a case where the stored data amount in the memory reaches a predetermined readout start storage amount;

write amount detection means for detecting the write of the predetermined amount of the data from the memory write and readout unit into the memory;

second completion signal generation means for generating a signal to notify the data processing unit that the write of the data into the memory has been completed, in a case where the write of the predetermined amount of the data is detected;

second data storage amount measurement means for measurement the stored data amount in the memory; and

second memory readout control means for generating an interrupt signal with respect to second memory write and readout unit, in a case where the stored data amount in the memory reaches a predetermined readout completion storage amount.

second memory readout control means for generating an interrupt signal with respect to second memory write and readout unit, in a case where the stored data amount in the memory reaches a predetermined readout completion storage amount.